



STORET Web Registration Application User Guide

November 2004

Introduction

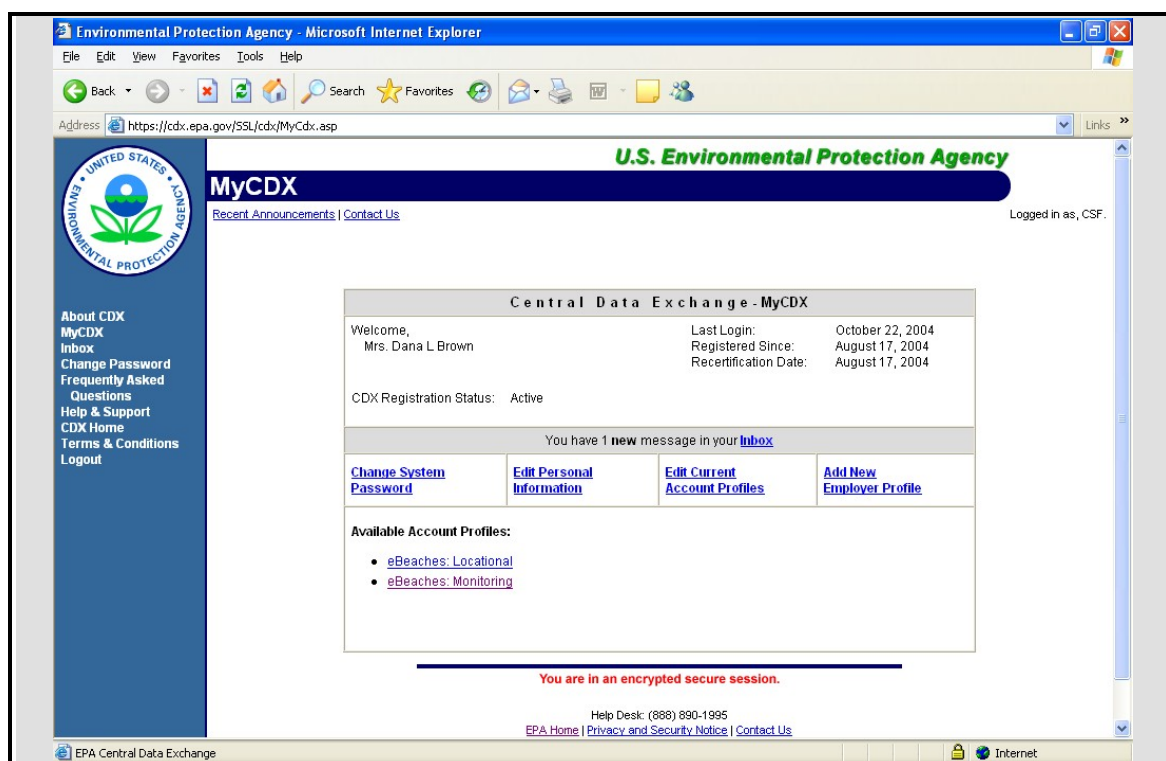
STORET is a data management system maintained by EPA that contains water quality information for the nation's waters. Monitoring agencies can enter data into STORET by two methods: 1) operate a local copy of STORET and submit data directly or 2) send data through EPA's Central Data Exchange (CDX) either as an XML or delimited file.

Those who choose option 2 and prefer not to run a local copy of STORET can use the STORET Web Registration Application. The Web Registration Application consists of a series of web forms that allow users to create, update, and register certain monitoring program elements that are necessary to exist in STORET prior to exchanging monitoring data. After "registering" your metadata with STORET, you will use the STORET Import Module (WebSIM) to transmit monitoring result data. It provides an efficient way to move metadata and parametric data to EPA.

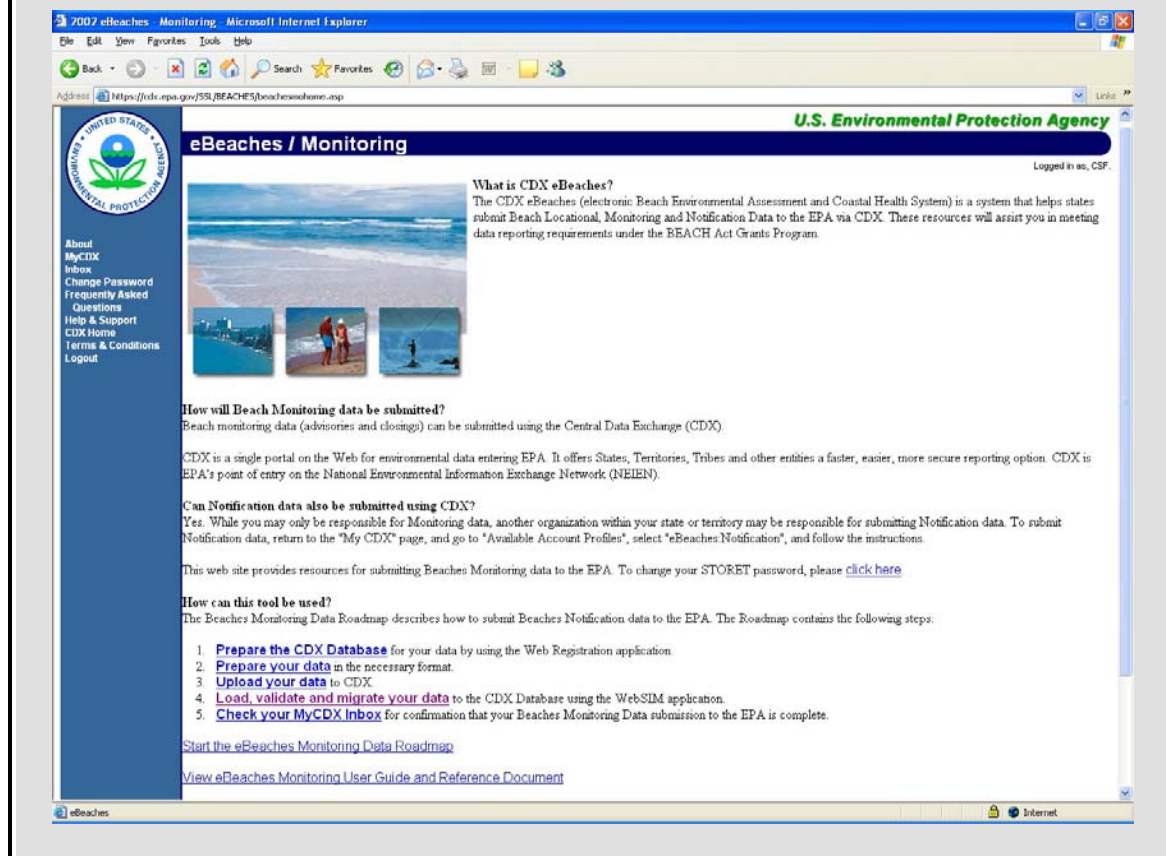
The purpose of this document is to guide the user through the STORET Web Registration process. Before you begin STORET Web Registration, you must complete the CDX registration process. If you have not completed CDX registration, you can find information about how to register from the CDX home page on the Internet at <http://cdx.epa.gov/warning.asp>. Click the **-Click here to Continue-** link to access the CDX home page. Click **Frequently Asked Questions** on the left sidebar and choose the **Registration Questions** link. If you have questions about this document or application, please contact the CDX HelpDesk by e-mail at epacdx@csc.com or by phone at 888-890-1995.

Accessing the STORET Web Registration Application

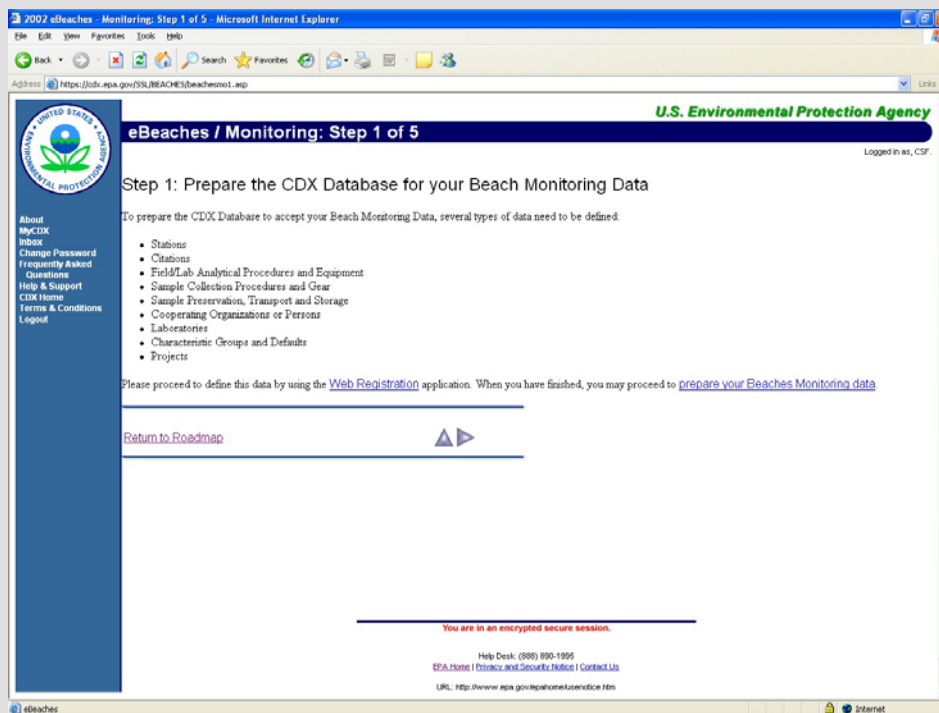
1. Access CDX on the Internet at **<http://cdx.epa.gov/warning.asp>**. Read the "Warning Notice" and "Privacy Statement" and click the **-Click here to Continue-** link at the bottom of the page to advance.
2. Next, click the link for users that already have a CDX ID and password (the second choice in the bulleted list). Enter your CDX ID and password and click **LOGIN**. This will give you access to the **MyCDX** page.
3. You should have access to the "Monitoring" role to transmit Beach monitoring data. If Monitoring is not an option under the MyCDX Profiles, call the CDX Help Desk. Click on the **BEACHES: Monitoring** link near the bottom of the page.



3. Click the **Prepare the CDX Database** link.



4. Note the types of data you will be entering with the Web Registration Application. Click the **Web Registration** link to begin entering the required data elements.



The STORET Web Registration page defines each of the data elements that require information. You can access the STORET Web Registration Application by clicking anywhere on the STORET graphic.

Note: The first time you access STORET Web Registration from this page, you may be prompted to download and install Jinitiator. This may take from 1-10 minutes, depending on your Internet connection speed. This small applet is required to run the Web Registration application in your web browser. If your organization has policies that prevent you from loading software on your computer, you will need to contact your local administrator to install this application.

1. Click anywhere on the STORET graphic to begin.



2. Accessing STORET requires another login. Enter your username and password issued by Charles Kovatch. Enter **epap2** for the database name.

Web Registration Application Overview

The *Web Registration Application* screen lists the Organization ID (OrgID) and name of the STORET organizations whose data can be updated. You cannot add or delete an organization, nor can you change the organization ID of an existing organization. The screen also lists the major information categories that you need to enter data into: Organization Information, Operational Activities, and Preferences and Defaults.

The online Help feature of the Web Registration Application describes the system's components. By clicking **Help** on the menu bar, you can determine what type of information a certain form should contain as well as the character length of the field. The Help function also describes the buttons on the toolbar and gives information about each data category.

Required fields are indicated on the forms by an asterisk (*). You may save the form after completing only the required fields, but filling out all of the fields is recommended. This ensures that each part of the data collection process is documented completely.

This guide uses the DEMOTEST Organization ID as an example. When working with your own data, you will need to select your own Organization ID.

Entering Data

You only need to describe your metadata information once to begin entering monitoring data into STORET. If the information changes in the future, you can access the metadata through the STORET Web Registration Application to update the data elements and add new entries.

1. Select your organization to begin defining data.

The screenshot displays the STORET Web Registration Application interface. At the top is a menu bar with options: Action, Edit, Query, Block, Record, Form, Window, and Help. Below the menu is a toolbar with various icons for file operations and navigation. The main window is titled "Web Registration Application" and contains a table for selecting an organization. The table has two columns: "Organization ID" and "Name". The first row shows "BCHAT" and "Beaches Program/OST Alpha Testing". The second row, which is highlighted in yellow, shows "DEMOTEST" and "The Commission for a Good Clean Chesapeake Bay". Below the table are three sections of buttons: "Organization Information" with "Org Description" and "Cooperating Org/Personnel"; "Operational Activities" with "Projects" and "Stations"; and "Preferences and Defaults" with "Citations", "Laboratories", "Field/Lab Analytical Procedures", "Sample Collection/Creation Procedures and Gear", "Sample Preservation, Transport and Storage", and "Characteristic Groups and Defaults". At the bottom of the window, there is a status bar showing "Organization ID", "Record: 2/2", and "<OSC>".

Organization ID	Name
BCHAT	Beaches Program/OST Alpha Testing
DEMOTEST	The Commission for a Good Clean Chesapeake Bay

Organization Information

Org Description Cooperating Org/Personnel

Operational Activities

Projects Stations

Preferences and Defaults

Citations Laboratories

Field/Lab Analytical Procedures

Sample Collection/Creation Procedures and Gear

Sample Preservation, Transport and Storage

Characteristic Groups and Defaults

Organization ID

Record: 2/2 ... <OSC>

Organization Information

In the Organization Information area, there are two buttons: **Org Description** and **Cooperating Org/Personnel**.



1. Click on **Org Description** and enter the organization Name and choose the “Type” from the drop-down list. You may also enter a mailing address and phone number.

A screenshot of the 'Organization' form in the application. The form has a menu bar (Action, Edit, Query, Block, Record, Form, Window, Help) and a toolbar with various icons. The form fields include: ID (DEMOTEST), Name* (The Commission for a Good Clean Chesapeake Bay), Type* (US Government/Interstate Comsn), Mailing Address (Line 1: P.O. Box 666, Line 2: Annapolis, MD 30987, Line 3: , Line 4:), and Phone Number (301-782-9087). The bottom status bar shows 'Organization Name' and 'Record: 1/1'.

2. After you have entered the appropriate information, **Save** your information either by choosing **Action->Save** from the menu or by clicking the yellow disc on the left side of the button toolbar.
3. Return to the main *Web Registration Application* screen by clicking the white “X” in the upper right corner of the screen.

4. Click the **Cooperating Org/Personnel** button. On the **Cooperating Organization** tab, enter the applicable information for Organization, Point of Contact, Mailing address, and Phone number for organizations that participate with you in water quality monitoring activities. To add another entry, click on the **Insert Record** button on the toolbar at the top.



The screenshot shows a web application window titled "Cooperating Organization/Personnel". The window has a menu bar with "Action", "Edit", "Query", "Block", "Record", "Form", "Window", and "Help". Below the menu bar is a toolbar with various icons, including a green plus sign icon. The main content area is divided into two tabs: "Cooperating Organization" (selected) and "Personnel". Under the "Cooperating Organization" tab, there are several input fields:

- Organization:** A dropdown menu showing "DEMOTEST" and a text field containing "The Commission for a Good Clean Chesapeake Bay".
- Basic Cooperating Organization Information:**
 - Name:** A dropdown menu showing "Maryland Department of Natural Resources".
 - Point of Contact:** A text field containing "Dr. Albert White".
- Mailing Address:** Four text fields labeled "Line 1", "Line 2", "Line 3", and "Line 4". "Line 1" contains "444 North Cap Street" and "Line 2" contains "Annapolis, MD 30987".
- Phone:** A text field labeled "Number" containing "410-356-7060".

At the bottom of the window, there is a status bar with the text "Coop Org Name" and "Record: 1/?".

For field descriptions, click **Help** on the menu bar and click on the **Organization** heading.

5. Click on the **Personnel** tab and enter information for the personnel that participate in ambient water quality monitoring activities.

The screenshot displays a web application window titled "Cooperating Organization/Personnel". The window has a menu bar with "Action", "Edit", "Query", "Block", "Record", "Form", "Window", and "Help". Below the menu is a toolbar with various icons. The main content area is divided into two tabs: "Cooperating Organization" and "Personnel". The "Personnel" tab is active, showing a form for entering personnel information. The form includes fields for "Last Name*" (containing "Boyd"), "First Name*" (containing "Joyce"), "Affiliation" (containing "Commission for a Good Clean Chesapeake Bay"), and "Phone Number" (containing "301-260-5368"). At the bottom of the window, there is a status bar with the text "Person Last Name" and "Record: 1/?".

6. When you have finished entering information in these areas, **Save** and then click the white "X" in the upper right corner to return to the main *Web Registration Application* screen.

Operational Activities

The Operational Activities section has two main areas: Projects and Stations. This section allows users to define the projects for which they conduct monitoring, as well as the sites where monitoring activities occur.

The screenshot shows a section titled "Operational Activities" with two buttons: "Projects" and "Stations".

1. Click on the **Projects** button and enter the information that relates to the projects you participate in to gather water quality data. You can use the **Insert Record** button to add new projects. For field descriptions, click on “Help” on the menu bar and click on the **Projects** heading.

Organization: DEMOTEST The Commission for a Good Clean Chesapeake Bay

Basic Project Information

ID*: CBCP-001 Start Date*: 12-12-1991 (MM-DD-YYYY) Planned Duration*: Ongoing

Name*: Water Quality and Biological Health of the Chesapeake Bay

Project Purpose*

This project has 3 specific objectives:

1. Determine the sources of pollution causing or contributing to existing or anticipated pollution problems in the Bay and its

Project Study Area

The project will extend to the entire Chesapeake Bay, including its estuaries and tributaries, and their adjacent urban and agricultural lands with their attendant runoff.

Project Design and Sampling Frequency

The water quality monitoring program will consist of surveys during which in-field water quality parameters will be measured and samples will be collected for laboratory analysis of nutrient and biological characteristics. In some areas, stations will be

How/Where to Obtain Complete Plan

The complete Project Plan is kept on file at the Offices of the Chesapeake Bay Program, in Annapolis, MD., and copies may be obtained by written request.

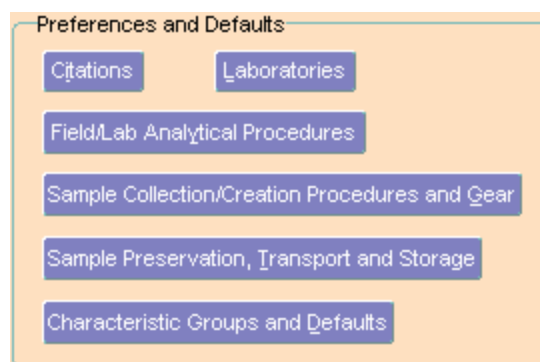
Project ID

Record: 1/? <OSC>

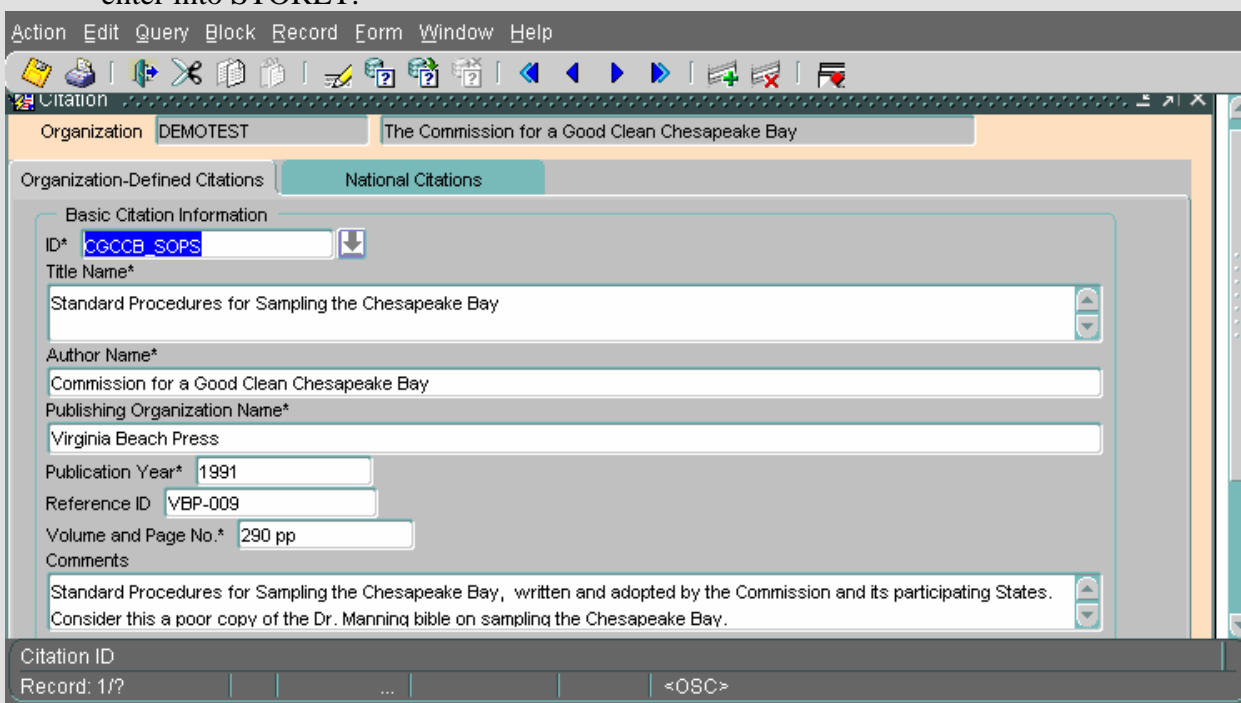
2. Feel free to copy and paste information from existing project description documents. When you are finished entering all of your project information, **Save** and click the “X” in the upper right corner to return to the Web Registration Application screen.
3. Click the **Stations** button and enter information for the locations where sampling or observations occur on the **Basic Station Information** tab. In addition to basic station information, the user should enter latitude and longitude coordinates, geopositioning, and elevation information. For field descriptions, click “Help” on the menu bar and click on the **Station** heading.
4. **Save** the information and close the *Station Information* screen to return to the *Web Registration Application* screen.

Preferences and Defaults

The Preferences and Defaults section has six areas that need to be defined: Citations; Laboratories; Field/Lab Analytical Procedures; Sample Collection/Creation Procedures and Gear; Sample Preservation, Transport and Storage; and Characteristic Groups and Defaults.



1. Click on the **Citations** button and enter information describing literature citations that document the monitoring practices used to obtain and analyze the data you will later enter into STORET.



2. **Save** and close the form to return to the main *Web Registration Application* screen

3. Click on the **Laboratories** button and enter information about the laboratories that perform analyses on your samples. **Save** and close the form to return to the *Web Registration Application* Screen.

The screenshot shows a web browser window titled "Laboratory". The menu bar includes "Action", "Edit", "Query", "Block", "Record", "Form", "Window", and "Help". The toolbar contains various icons for file operations and navigation. The form itself has a light orange background and is titled "Laboratory". At the top, there are two text boxes: "Organization" with the value "DEMOTEST" and a description "The Commission for a Good Clean Chesapeake Bay". Below this is a section titled "Basic Lab Information" containing two text boxes: "ID*" with the value "DD-001" and a dropdown arrow, and "Name*" with the value "Dewberry & Davis Environmental Laboratory". To the right of this section is a "Phone" section with a "Number" text box containing "301-884-0989". Below the "Basic Lab Information" section is a "Mailing Address" section with four text boxes labeled "Line 1", "Line 2", "Line 3", and "Line 4". At the bottom of the form, there is a "Lab ID" section with a "Record: 1/?" label and a "<OSC>" button.

Field/Lab Analytical Procedures

The organization can describe its own field and laboratory analytical procedures and/or it can adopt national analytical procedures. The use of both these functions allows the organization to create and maintain an active list of field and lab analytical procedures that are unique to its monitoring operations.

1. To describe an analytical procedure unique to your organization, click the **Organization-Owned Analytical Procedures** tab and enter applicable information. The "Help" feature can give you useful information about what to include in each field. Click **Save** and either click on the **Adopted National Procedures** tab or close the form to return to the main *Web Registration Application* screen.
2. Click on the **Adopted National Procedures** tab. To adopt a National Procedure, click the **Add More Nat'l** button.

You can scroll through the list to find the procedure, or you can search for particular procedures.

Searching using the Query Function

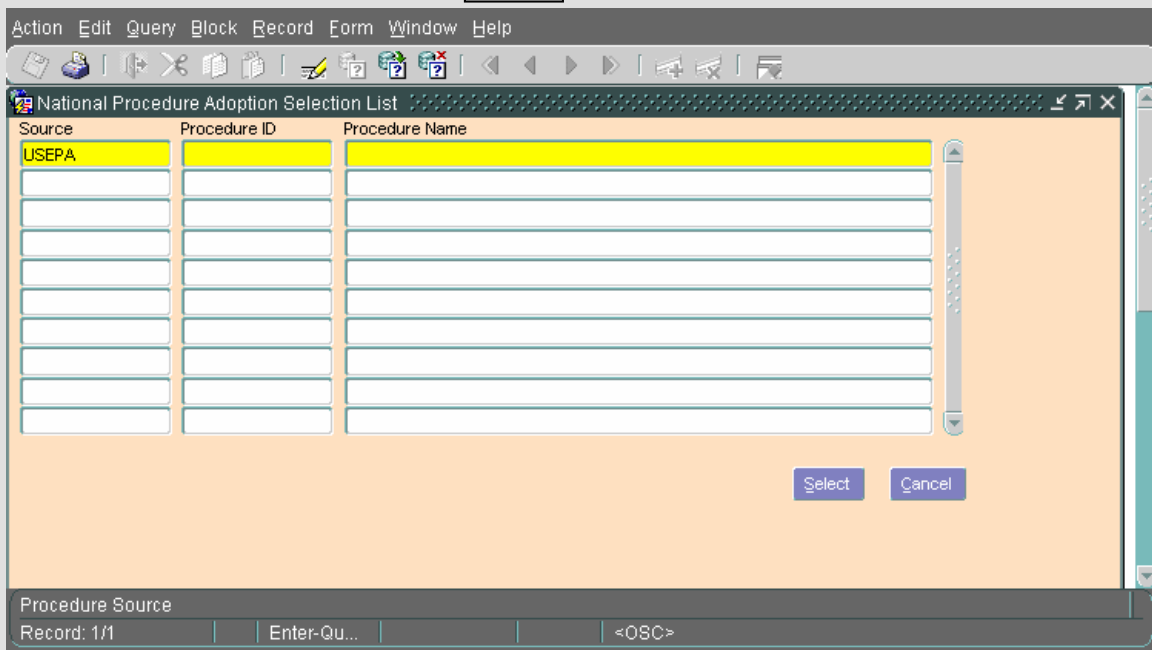
If you want to search through a list instead of scrolling, you can use the following example as a reference.

In the first example, we will search for all procedures that have “USEPA” as their source.

1. From the Adopted National Procedures tab, click the **Add More Nat'l** button.
2. Click the **Enter Query** button (the button on the left).

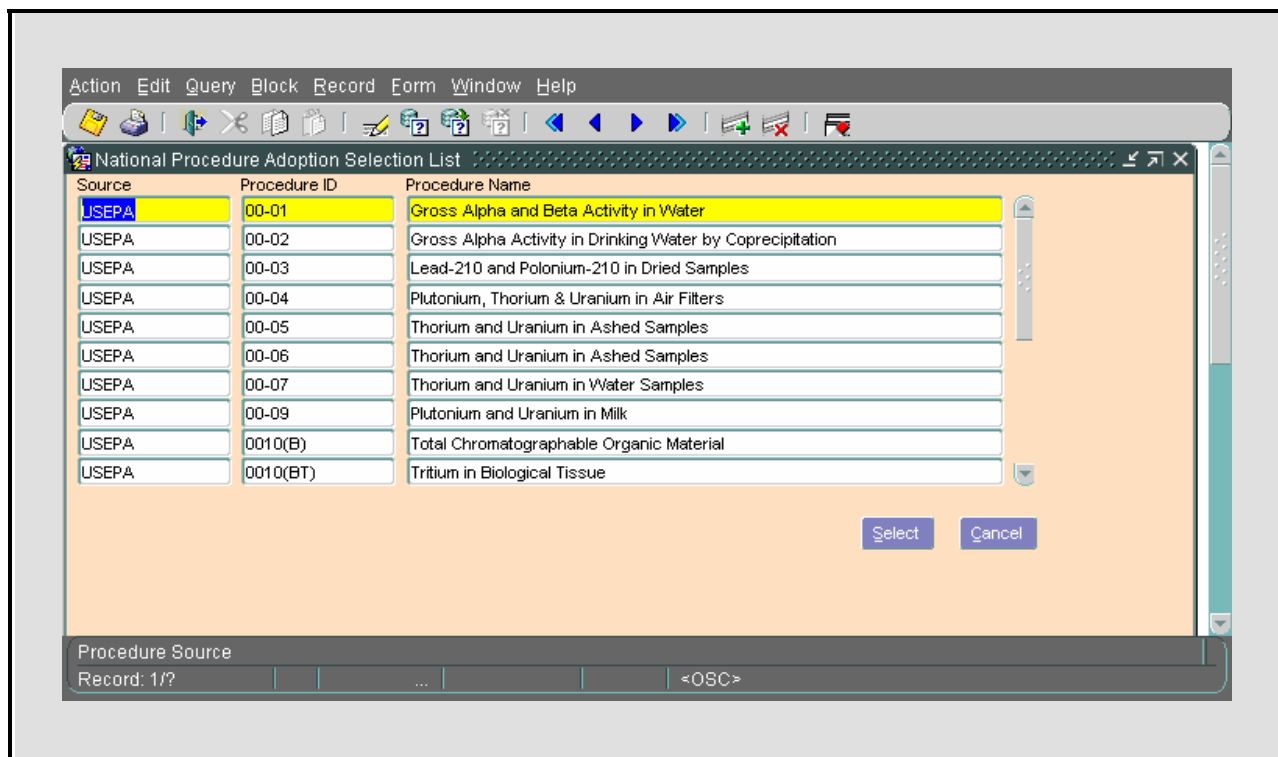


3. Click in the text box below “Source” to position your cursor there. Type “USEPA” and click the **Execute Query** button (the button in the center with the small green arrow).



Source	Procedure ID	Procedure Name
USEPA		

4. The query produces a list of procedures that have USEPA as their source. To adopt one of these procedures, scroll through the list and select the procedure and then click the **Select** button.



In addition to searching using the Source field, you can perform similar queries on the Procedure ID and Procedure Name Field.

1. **Save** and then **close** the Field/Lab Analytical Procedures form to return to the main *Web Registration Application* screen.

Sample Collection/Creation Procedures and Gear

Use this window to create, update or delete a sample collection/creation procedure and gear configuration. A gear configuration is associated with each collection procedure defined in the system. The gear configuration will always have the same ID and Name as the given procedure. These procedures and gear configurations are used in the field to generate samples, measurements, and/or observations. To define a procedure and gear configuration in the database, you must:

- Provide an ID that is unique within the organization's list of sample collection/creation procedures. This ID also uniquely identifies a gear configuration.
- Provide a procedure (and gear configuration) name.
- Provide the gear name that best defines the gear configuration. Note: An associated gear type is stored with the procedure. For example, if you choose

"Drive sampler (generic)" gear name, then the procedure's gear type will be "Benthic Corer".

- Provide a description for the procedure.

Additionally, you can associate the procedure with a previously described citation.

1. Click on the **Sample Collection/Creation Procedures and Gear** button.
2. In the "ID" field, enter an ID that is unique with your organization's list of sample collection/creation procedures (and gear configurations).
3. In the "Name" field, enter the procedure name.
4. In the "Gear" field, enter the gear name that best defines the gear configuration.
5. In the "Description" field, enter additional text that describes the sample collection/creation procedure.
6. To associate a citation with the procedure, click on the drop-down arrow in the "Citation Title" box. Select the citation and click **OK**.

The screenshot shows a web browser window with the title 'Sample Collection/Creation Procedures & Gear'. The browser's address bar shows 'The Commission for a Good Clean Chesapeake Bay'. The form has a menu bar with 'Action', 'Edit', 'Query', 'Block', 'Record', 'Form', 'Window', and 'Help'. Below the menu bar is a toolbar with various icons. The form itself has a header section with 'Organization' set to 'DEMOTEST' and 'The Commission for a Good Clean Chesapeake Bay'. The main section is titled 'Basic Sample Collection/Creation Procedure Information' and contains several fields: 'ID*' with the value 'DEMO-1', 'Name*' with the value 'Water Grab Sample', 'Gear*' with a dropdown menu showing 'Water Sampler' and 'Bucket', and 'Description*' with the text 'waded to middle of stream and used bucket to collect sample from water surface'. At the bottom of the form, there is a 'Citation ID' field with the value 'USGS-FIELD' and a 'Citation Title' field with the value 'National Field Manual for the Collection of Water-Quality Data'. There is a dropdown arrow next to the 'Citation Title' field and an 'Unassign' button. The bottom of the form has a status bar with 'Procedure ID' and 'Record: 2/?'.

7. **Save** the information and **close** to return to the main *Web Registration Application* screen.

Sample Preservation, Transport and Storage

Use this window to create, update or delete sample transport and storage profiles for the organization. These profiles are groups of defaults for sample handling descriptors and are representative of a particular type of sampling. In addition to entering a unique ID and name for the profile, you can also select a container type, container size, container color, and temperature preservation type from lists provided by the system, as well as describe a chemical preservation and storage procedure for the profile.

1. Click on the **Sample Preservation, Transport and Storage** button.
2. In the “ID” field, enter a unique Transport and Storage profile ID.
3. In the “Name” field, enter a name for the profile.
4. Choose the “Container Type” from the drop-down list.
5. Enter the “Container Size” and select the units from the drop-down list beside it.
6. Choose the “Color” and “Temperature Preservation Type” from the drop-down lists.
7. In the **Chemical Preservation and Storage Procedure** box, describe the chemical preservation and storage procedures employed by the profile.

Organization: DEMOTEST The Commission for a Good Clean Chesapeake Bay

Basic Information

ID*: STS-001

Name*: Metals/water

Handling and Storage

Container Type: HDPE Bottle

Container Size: 1

Color: Clear

Temperature Preservation Type: Refrigerated (4 deg C)

Chemical Preservation and Storage Procedure: Adjust pH<2.0 with HNO3

Sample Default Profile Container Size Unit of Measure

Record: 1/? ... <OSC>

8. **Save** the entry and **close** to return to the main Web Registration Application screen.

Characteristic Groups and Defaults

In STORET, a “Characteristic” is the generic term for all things measured in the field (e.g., Fecal Coliform, water temperature, taxa counts). Use this window to describe "groups" of characteristics that may be of repeated interest to the organization. These lists can be project-specific, river/stream-specific, sampling station-specific, etc.

1. Click on the **Characteristic Groups and Defaults** button.
2. In the “ID” field, enter a unique ID that identifies the characteristic group.
3. In the “Name” field, enter the organization-defined label for the characteristic group.
4. In the “Field Activity” field, select the appropriate field activity from the drop-down list.
5. If the characteristic group is a habitat assessment, click in the check box for “Habitat Assessment” and in the dropdown box below, choose either “User-defined” or “System-defined.” The system will then automatically default the Field Activity field to "Field Msr/Obs." You will not need to select a medium type, and you may skip step 5a below.
- 5a. Click on the Characteristics button at the bottom. In the form that appears, enter description of the habitat characteristics for the group. Save and close the form to return to the *Characteristic Groups and Defaults Maintenance* screen.
6. In the “Medium” field, select the appropriate medium.

7. To associate a citation with the characteristic group, click on the arrow for the drop-down list on the “Citation Title” field. Select the correct citation and click **OK**.

The screenshot shows the 'Characteristic Groups & Defaults Maintenance' application window. The window has a menu bar with 'Action', 'Edit', 'Query', 'Block', 'Record', 'Form', 'Window', and 'Help'. Below the menu bar is a toolbar with various icons. The main form area is titled 'Characteristic Groups & Defaults Maintenance'. It has two tabs: 'Organization' (selected) and 'The Commission for a Good Clean Chesapeake Bay'. The 'Basic Characteristic Group Information' section contains the following fields:

- ID*: CG-000 (with a dropdown arrow)
- Name*: Water Borne Pathogens
- Field Activity*: Sample (dropdown)
- Medium*: Water (dropdown)
- Citation ID: CGCCB_SOPS
- Citation Title: Standard Procedures for Sampling the Chesapeake Bay (with a dropdown arrow and an 'Unassign' button)
- Description: (empty text area)

There is also a checkbox labeled 'Habitat Asses...' and a button labeled 'Characteristics' at the bottom right. The status bar at the bottom shows 'Char Group ID' and 'Record: 1/?'.

8. Use the “Description” field to enter additional text that further describes the aggregation of characteristics.

Characteristics

Use this screen to manage the characteristics in a characteristic group. You can add and delete characteristics from the list, provide general "defaults" for each characteristic, and provide a default field/lab analytical procedure and a default lab sample prep for each characteristic. For each characteristic in the display list, you can view the complete list of defaults by scrolling to the right. The following is an example of how to view and add to the characteristics of a group.

1. Click in the text box of the ID field. Click on the **Enter Query** button.
2. Enter a "CG-003" and click the **Execute Query** button.

The screenshot shows a web application window titled "Characteristic Groups & Defaults Maintenance". The menu bar includes "Action", "Edit", "Query", "Block", "Record", "Form", "Window", and "Help". The toolbar contains various icons for file operations and navigation. The main content area is divided into two tabs: "Organization" (selected) and "The Commission for a Good Clean Chesapeake Bay". Under the "Organization" tab, there is a section titled "Basic Characteristic Group Information". This section contains several input fields: "ID*" with the value "CG-003", "Name*", "Field Activity*", and "Medium*", each with a dropdown arrow. To the right of these fields is a checkbox labeled "Habitat Asses..." which is checked, and a dropdown menu. Below these fields are "Citation ID", "Citation Title", and "Description" fields. The "Citation Title" field has a dropdown arrow and an "Unassign" button. At the bottom right of the form is a "Characteristics" button. The status bar at the bottom shows "Char Group ID", "Record: 1/1", and buttons for "Enter-Qu...", "List of Valu...", and "<OSC>".

3. This Characteristic Group is "General Station Observations."
4. Click on the **Characteristics** button. This will show you a list of characteristics associated with "General Station Observations."
5. To add a new characteristic to this list, click on the **Search by Char Name** button in the "Add Characteristics" section of the form.
6. In the "Find" text box, choose a letter (such as "W") and click the Find button.

Characteristic Selection List

Enter a partial value to limit the list, % to see all values.

Warning: Entering % to see all values may take a very long time. Entering criteria that can be used to reduce the list may be significantly faster.

Find W

Search Name	Name
-------------	------

Find OK Cancel

Choices in list: 0

Record: 1/?

The query will return all results that begin with the letter you entered.

6. Select one of the characteristics and click **OK**.
7. A new screen will appear where you can define the default values for the fields in the Characteristic Group Characteristics List.
9. Fill in the values for the characteristic that you selected. The example below is for Wave Height.

Note: If you are not using the DEMOTEST Organization ID instead of your own data at this point, you may not use "EXAMPLE-1" as the Row ID because that value already exists in the database.

Row ID: EXAMPLE-1	Duration: 24 Hours
Value Unit: Inches	Lower Acceptable Result Range: 0
Value Type: Estimated	Upper Acceptable Result Range: 8
Assigned Field/Lab Analytical Procedure: STATION OBS	

10. **Save** the entry and **close** the form to return to the Characteristic Group Characteristics List form. **Close** this form to return to the main Web Registration Application screen.

Your required data elements are now defined. Later, you may need to add other data elements or update the existing ones. You may exit the Web Registration Application by clicking on **Action->Exit** on the menu bar.

By now you have learned how to add information about your organization, sampling procedures, and sampling locations to STORET via the STORET Web Registration Application. If you have questions about this application, please contact the CDX HelpDesk by e-mail at epacdx@csc.com or by phone at 888-890-1995. This concludes the STORET Web Registration Userguide.